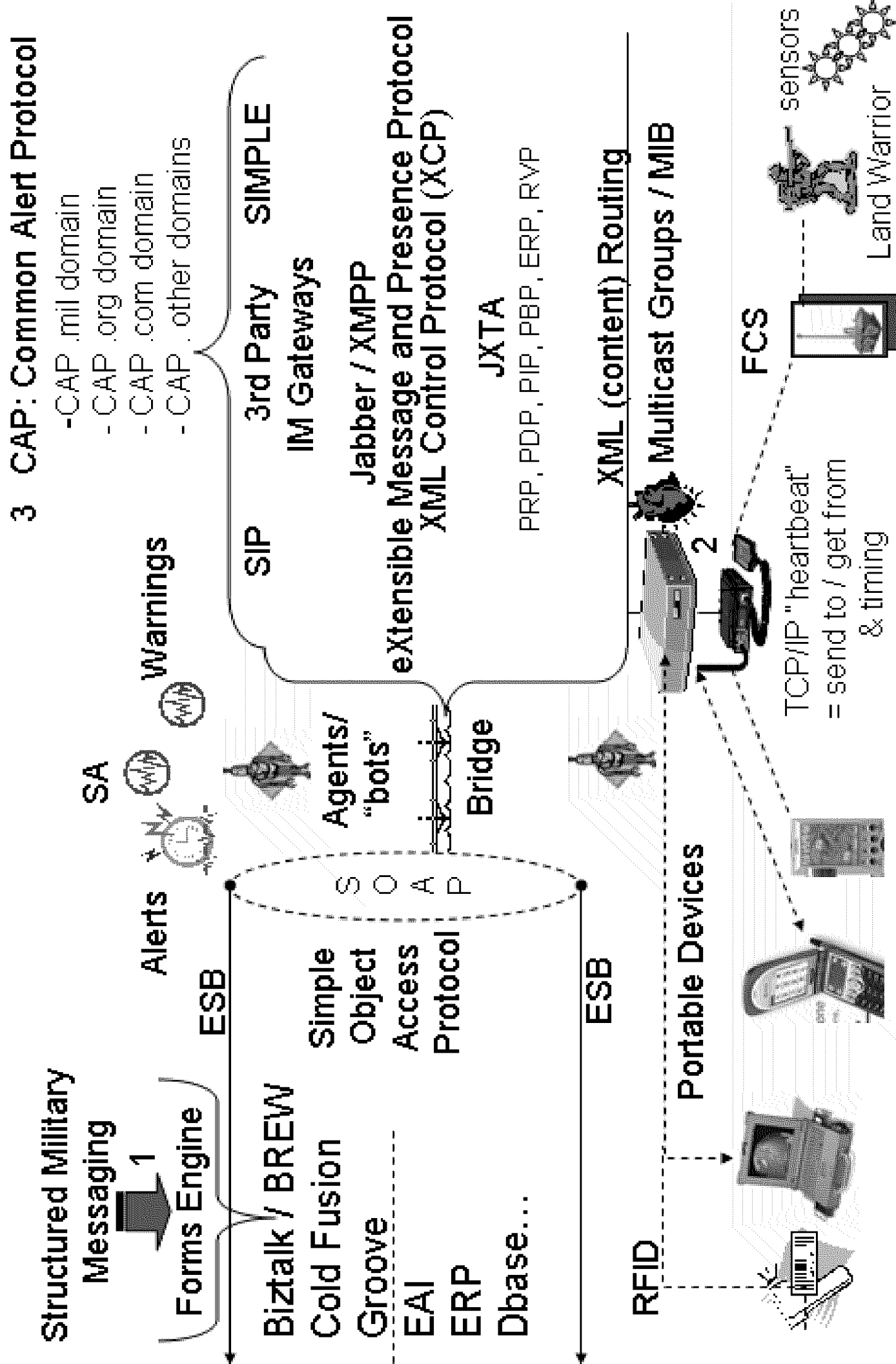


Heartbeat 911



| | |
|--|---|
| Military // Homeland Defense | Department of Homeland Security, .com .org |
| Well-known multicast groups | Subscription service providers for the .com, .org, or by corporate domains maintaining well known multicast groups on a subscription basis |
| Doctrinal multicast groups | Groups by domain segment or by formal agreement (e.g., transportation, security, SAFECOM users by type etc) maintained by federally funded organizations |
| Moving unit, gaining unit (of action), platform | Platform or user / handoff subscriber node |
| Command Relationship (OPCON, ATTACH), Unit of Action, Unit of Employment | Heartbeat 911 subscriber service, primary provider, affiliate provider, if roaming |
| The Effective Date/Time/Group (DTG) Block | Date / Time adjusted for Daylight Savings, world time zones |
| The Synchronization Delta Time Block | Time when moving or traveling group executes network changes that change data distribution routes in supporting routers |
| The UTR (R = reorganization) command is broadcast to the entire net / subnet for execution | UTR = Unit Task Reorganization – message sent that contains data changing router Management Information Bases (MIBS) that change participation in multicast groups subscriptions reflecting organization structure |
| Affected platforms belonging to the Moving Unit execute as per the Effective DTG. | Service providers router multi-cast groups change given organizational changes, user movements, pre-set time limits or intervals |
| All others not affected execute at Synchronization Delta Time | Agreed upon time frame e.g., 15 minutes or 15 days etc where message containing information needed to configure router MIB |
| The Heart Beat process incorporates the UTR command into the periodic Heart Beat message. This then becomes the process by which "stragglers" maintain configuration synchronization | "Stragglers" = RFID tagged package that did not ship from known point or traveler that missed a way point check in or service subscriber missing an agreed upon entry or pattern of entry becomes erratic = agreed upon rules |
| Task organization of the tactical internet Planning on when and what to change is critical | Changing major network configurations based upon major events (Olympics), or (anticipating) major movements of subscribers (natural, manmade disasters), major corporate meeting |
| EPLRS network configuration (if moving to a new BN or BDE (EPLRS is a GPS receiver/radio in widespread use) | Changes to supporting radio (e.g., SAFECOM) networks. Corresponds to a GPS card equipped device like a smart phone |
| SA CSMA server rank (Collision Sense Multiple Access = router enforced) | Subscriber priority, subscription levels as enforced by Service Level Agreements (SLA) |

Figure 2 – Unit Task Order Translation